REMARKS

The Office Action mailed December 11, 2007 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-24 and 26 are now pending in this application. Claims 1-8, 10-18, and 20-25 stand rejected. Claims 9 and 19 stand objected to. Claim 25 has been canceled without prejudice, waiver, or disclaimer.

Applicant acknowledges the Examiner's indication that Claims 9 and 19 contain allowable subject matter.

Applicant respectfully submits that, on page 1 of the Office Action, the drawings submitted August 16, 2007, were neither accepted nor objected to. As such, Applicant respectfully requests that Examiner acknowledge acceptance of the drawings submitted August 16, 2007.

The rejection of Claims 1-6, 10-16, and 20-25 under 35 U.S.C. § 103(a) as being unpatentable over Kato et al. (U.S. Pat. No. 4,317,179) ("Kato") in view of Loce et al. (U.S. Pat. No. 5,696,845) ("Loce") is respectfully traversed.

Although the Examiner asserts on page 2 of the Office Action that Claims 1-4, 10-14, and 20-24 are rejected as being unpatentable over Kato in view Loce, it appears on page 4 of the Office Action that Claims 5, 6, 15, 16 , 24, and 25 are also rejected as being unpatentable over Kato in view of Loce. As such, Applicant proceeds as though Claims 1-6, 10-16, and 20-25 are rejected as being unpatentable over Kato in view of Loce.

Claim 25 has been canceled. Accordingly, Applicant respectfully requests that the Section 103 rejection of Claim 25 be withdrawn.

Kato describes an image processing system employing an image processing method. The method includes obtaining an unsharp mask density (Dus) that includes only a super-low frequency within an original image density (Dorg) of an original radiographed image. The unsharp mask density (Dus) is generated by blurring the original image density (Dorg) to contain only frequency components that are lower than the super-low frequency. A signal conversion is preformed by utilizing a modulation transfer function (MTF) that is based on

the difference between the original image density (Dorg) and the unsharp mask density (Dus) and on an emphasis coefficient (β) based on frequency. The signal conversion produces an image that emphasizes a frequency component that is above the super-low frequency. The emphasis coefficient (β) may be fixed or changed as a function of the original image density (Dorg) or the unsharp mask density (Dus). Further, by selecting the emphasis coefficient (β) and the unsharp mask density (Dus), a ratio of a maximum value (B) to a minimum value (A) of the modulation transfer function (MTF) can be changed. Notably, Kato does not describe or suggest calculating a relative pixel value based on a predetermined threshold value T and an initial pixel value of at least one pixel of an obtained image. Further, Kato does not describe or suggest modulating a filtering operation with a gain factor that is based on a gain factor curve and a calculated relative pixel value.

Applicant respectfully traverses the assertion on page 2 of the Office Action that Kato teaches modulating a filtering operation with a gain factor that is based on a gain factor curve and a relative pixel value. Rather, Kato describes a modulation transfer function that is based on the difference between an original image density and an unsharp mask density and based on an emphasis coefficient. As such, the modulation transfer function described in Kato does not modulate a filtering operation with a gain factor that is based on a gain factor curve and a relative pixel value, as recited in the presently pending claims.

Applicant respectfully traverses the assertion on page 2 of the Office Action that Figure 3 of Kato describes at least a gain factor curve. In contrast to such an assertion, Applicant respectfully submits that Figures 3A-3D of Kato illustrate the relationship between the emphasis coefficient (β) and the original image density (Dorg) or the unsharp mask density (Dus) (col. 8, lines 46-49).

Loce describes a method for enhancing a print-out produced by an electronic reprographic system capable of printing a bitmap image by producing a series of pulse-width, position-modulated signals. The method includes predetermining a set of possible pulse attribute words to define the characteristics of corresponding pulse-width, position-modulated signals. The set of possible pulse attribute words represents statistically significant arrangements of input pixels within a pixel observation window. To determine the statistically significant arrangements of input pixels, an occurrence threshold is determined (472) for a database entry as a function of the number of occurrences of an input template pattern. The threshold is applied (474) to an output pixel field and those output pixels that

have occurred in an activated state more times than the threshold are chosen to be activated in the output pattern. The identified output pixel positions are used (476) to produce the density preserving output pattern, wherein a template pattern pair is produced such that the statistically preferred pattern of output pixels will be generated whenever the input template pattern for that entry is detected in an image that has been input to an image rendering device that possess the filter.

The method in Loce also includes programming a look-up table memory using the set of possible pulse attribute words and the template pattern pair, and selecting (32) a target pixel location in the bitmap image. A set of pixels within a pixel observation window superimposed on the bitmap image are observed (34) as binary pixels, relative to the target pixel location, and an index pointer is generated (36) as a function of a subset of the set of pixels. The index pointer is used to access (38) the look-up table memory to look-up the pulse attribute word that defines the characteristics of the pulse-width, position modulated signal that will be used to print the target pixel so as to enhance the resulting print-out. Notably, Loce does not describe or suggest calculating a relative pixel value based on a predetermined threshold value T and an initial pixel value of at least one pixel of an obtained image. Further, Loce does not describe or suggest modulating a filtering operation with a gain factor that is based on a gain factor curve and a calculated relative pixel value.

Applicant respectfully traverses the assertion on page 2 of the Office Action that Loce teaches a relative pixel (output pixel) value which is associated with a threshold. Rather, Loce describes an output pattern based on a statistical threshold determined from an input template pattern, wherein the output pattern is used to generate a statistically preferred pattern of output pixels based on an input pattern. Because, in Loce, only those output pixels that have occurred in an activated state more times than the threshold are chosen to be activated in the output pattern, Loce does not describe or suggest a relative pixel value. Rather, the method in Loce filters out infrequently occurring pixel patterns without altering the value of the pixel.

Claim 1 recites a method for filtering images comprising "obtaining an image including pixels having initial pixel values . . . calculating a relative pixel value based on a predetermined threshold value T and an initial pixel value of at least one pixel of the obtained image . . . modulating a filtering operation with a gain factor that is based on a gain factor curve and the calculated relative pixel value . . . performing the modulated filtering operation

on the initial pixel value of the at least one pixel . . . and obtaining a final pixel value of the at least one pixel using the modulated filtering operation and the initial value of the at least one pixel."

Neither Kato nor Loce, considered alone or in combination, describes or suggests a method for filtering images as recited in Claim 1. More specifically, neither Kato nor Loce, considered alone or in combination, describes or suggests a method that includes calculating a relative pixel value based on a predetermined threshold value *T* and an initial pixel value of at least one pixel of an obtained image. Further, neither Kato nor Loce, considered alone or in combination, describes or suggests a method that includes modulating a filtering operation with a gain factor that is based on a gain factor curve and a calculated relative pixel value. Rather, in contrast to the present invention, Kato describes a modulation transfer function that is based on the difference between an original image density and an unsharp mask density and based on an emphasis coefficient, and Loce describes determining an occurrence threshold for a database entry as a function of the number of occurrences of an input template pattern and applying the threshold to an output pixel field to choose output pixels that have occurred in an activated state more times than the threshold to be activated in an output pattern.

Accordingly, for at least the reasons set forth above, Claim 1 is submitted to be patentable over Kato in view of Loce.

Claims 2-6 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2-6 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claims 2-6 likewise are patentable over Kato in view of Loce.

Claim 10 recites a method for filtering images comprising "obtaining a computed tomography (CT) image including pixels having initial pixel values . . . calculating a relative pixel value based on a predetermined threshold value *T* and an initial pixel value of at least one pixel of the obtained CT image . . . modulating a filtering operation with a gain factor that is based on a gain factor curve and the calculated relative pixel value . . . performing the modulated filtering operation on the initial pixel value of the at least one pixel . . . and obtaining a final pixel value of the at least one pixel using the modulated filtering operation and the initial value of the at least one pixel."

Neither Kato nor Loce, considered alone or in combination, describes or suggests a method for filtering images as recited in Claim 10. More specifically, neither Kato nor Loce, considered alone or in combination, describes or suggests a method that includes calculating a relative pixel value based on a predetermined threshold value *T* and an initial pixel value of at least one pixel of an obtained CT image. Further, neither Kato nor Loce, considered alone or in combination, describes or suggests a method that includes modulating a filtering operation with a gain factor that is based on a gain factor curve and a calculated relative pixel value. Rather, in contrast to the present invention, Kato describes a modulation transfer function that is based on the difference between an original image density and an unsharp mask density and based on an emphasis coefficient, and Loce describes determining an occurrence threshold for a database entry as a function of the number of occurrences of an input template pattern and applying the threshold to an output pixel field to choose output pixels that have occurred in an activated state more times than the threshold to be activated in an output pattern.

Accordingly, for at least the reasons set forth above, Claim 10 is submitted to be patentable over Kato in view of Loce.

Claim 11 recites a computer-readable medium encoded with a program configured to "obtain an image including pixels having initial pixel values . . . calculate a relative pixel value based on a predetermined threshold value *T* and an initial pixel value of at least one pixel of the obtained image . . . modulate a filtering operation with a gain factor that is based on a gain factor curve and the calculated relative pixel value . . . perform the modulated filtering operation on the initial pixel value of the at least one pixel . . . and obtain a final pixel value of the at least one pixel using the modulated filtering operation and the initial value of the at least one pixel."

Neither Kato nor Loce, considered alone or in combination, describes or suggests a computer-readable medium as recited in Claim 11. More specifically, neither Kato nor Loce, considered alone or in combination, describes or suggests a computer-readable medium encoded with a program configured to calculate a relative pixel value based on a predetermined threshold value *T* and an initial pixel value of at least one pixel of an obtained image. Further, neither Kato nor Loce, considered alone or in combination, describes or suggests a computer-readable medium encoded with a program configured to modulate a filtering operation with a gain factor that is based on a gain factor curve and a calculated

relative pixel value. Rather, in contrast to the present invention, Kato describes a modulation transfer function that is based on the difference between an original image density and an unsharp mask density and based on an emphasis coefficient, and Loce describes determining an occurrence threshold for a database entry as a function of the number of occurrences of an input template pattern and applying the threshold to an output pixel field to choose output pixels that have occurred in an activated state more times than the threshold to be activated in an output pattern.

Accordingly, for at least the reasons set forth above, Claim 11 is submitted to be patentable over Kato in view of Loce.

Claims 12-16 depend, directly or indirectly, from independent Claim 11. When the recitations of Claims 12-16 are considered in combination with the recitations of Claim 11, Applicant submits that dependent Claims 12-16 likewise are patentable over Kato in view of Loce.

Claim 20 recites a computer configured to "obtain an image including pixels having initial pixel values . . . calculate a relative pixel value based on a predetermined threshold value *T* and an initial pixel value of at least one pixel of the obtained image . . . modulate a filtering operation with a gain factor that is based on a gain factor curve and the calculated relative pixel value . . . perform the modulated filtering operation on the initial pixel value of the at least one pixel . . . and obtain a final pixel value of the at least one pixel using the modulated filtering operation and the initial value of the at least one pixel."

Neither Kato nor Loce, considered alone or in combination, describes or suggests a computer as recited in Claim 20. More specifically, neither Kato nor Loce, considered alone or in combination, describes or suggests a computer configured to calculate a relative pixel value based on a predetermined threshold value *T* and an initial pixel value of at least one pixel of an obtained image. Further, neither Kato nor Loce, considered alone or in combination, describes or suggests a computer configured to modulate a filtering operation with a gain factor that is based on a gain factor curve and a calculated relative pixel value. Rather, in contrast to the present invention, Kato describes a modulation transfer function that is based on the difference between an original image density and an unsharp mask density and based on an emphasis coefficient, and Loce describes determining an occurrence threshold for a database entry as a function of the number of occurrences of an input template

pattern and applying the threshold to an output pixel field to choose output pixels that have occurred in an activated state more times than the threshold to be activated in an output pattern.

Accordingly, for at least the reasons set forth above, Claim 20 is submitted to be patentable over Kato in view of Loce.

Claim 21 recites a computed tomographic (CT) imaging system for filtering CT images, the imaging system comprising "a detector array having a plurality of detectors . . . an x-ray source positioned to emit x-rays toward the detector array . . . and a processor operationally coupled to the detector array, the processor configured to . . . obtain an image including pixels having initial pixel values . . . calculate a relative pixel value based on a predetermined threshold value *T* and an initial pixel value of at least one pixel of the obtained image . . . modulate a filtering operation with a gain factor that is based on a gain factor curve and the calculated relative pixel value . . . perform the modulated filtering operation on the initial pixel value of the at least one pixel . . . and obtain a final pixel value of the at least one pixel using the modulated filtering operation and the initial value of the at least one pixel."

Neither Kato nor Loce, considered alone or in combination, describes or suggests computed tomographic (CT) imaging system for filtering CT images as recited in Claim 21. More specifically, neither Kato nor Loce, considered alone or in combination, describes or suggests an imaging system that includes a processor configured to calculate a relative pixel value based on a predetermined threshold value *T* and an initial pixel value of at least one pixel of an obtained image. Further, neither Kato nor Loce, considered alone or in combination, describes or suggests an imaging system that includes a processor configured to modulate a filtering operation with a gain factor that is based on a gain factor curve and a calculated relative pixel value. Rather, in contrast to the present invention, Kato describes a modulation transfer function that is based on the difference between an original image density and an unsharp mask density and based on an emphasis coefficient, and Loce describes determining an occurrence threshold for a database entry as a function of the number of occurrences of an input template pattern and applying the threshold to an output pixel field to choose output pixels that have occurred in an activated state more times than the threshold to be activated in an output pattern.

Accordingly, for at least the reasons set forth above, Claim 21 is submitted to be patentable over Kato in view of Loce.

Claims 22-24 depend, directly or indirectly, from independent Claim 21. When the recitations of Claims 22-24 are considered in combination with the recitations of Claim 21, Applicant submits that dependent Claims 22-24 likewise are patentable over Kato in view of Loce.

For at least the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claims 1-6, 10-16, and 20-25 be withdrawn.

The rejection of Claims 7, 8, 17, and 18 under 35 U.S.C. § 103(a) as being unpatentable over Kato in view of Loce, and further in view of Nakamura (U.S. Pat. No. 5,649,031) ("Nakamura") is respectfully traversed.

Kato and Loce are described above.

Nakamura describes a method for filtering that includes calculating mean densities (A(b), A(d), A(h), A(l), and A(n)) of specified pixels (b, d, h, l, and n) in respective pixel regions, and calculating an edge enhancement value (E(b), E(d), E(h), E(l), and E(n)) with respect to each respective pixel (b, d, h, l, and n). Results of each calculation are used as coefficients of a dot filter. Notably, Nakamura does not describe or suggest calculating a relative pixel value based on a predetermined threshold value T and an initial pixel value of at least one pixel of an obtained image. Further, Nakamura does not describe or suggest modulating a filtering operation with a gain factor that is based on a gain factor curve and a calculated relative pixel value.

Claims 7 and 8 depend indirectly from independent Claim 1, which is recited above.

None of Kato, Loce, and Nakamura, considered alone or in combination, describe or suggest a method for filtering images as recited in Claim 1. More specifically, none of Kato, Loce, and Nakamura, considered alone or in combination, describe or suggest a method that includes calculating a relative pixel value based on a predetermined threshold value T and an initial pixel value of at least one pixel of an obtained image. Further, none of Kato, Loce, and Nakamura, considered alone or in combination, describe or suggest a method that includes modulating a filtering operation with a gain factor that is based on a gain factor curve and a

calculated relative pixel value. Rather, in contrast to the present invention, Kato describes a modulation transfer function that is based on the difference between an original image density and an unsharp mask density and based on an emphasis coefficient, Loce describes determining an occurrence threshold for a database entry as a function of the number of occurrences of an input template pattern and applying the threshold to an output pixel field to choose output pixels that have occurred in an activated state more times than the threshold to be activated in an output pattern, and Nakamura describes a filtering method that includes a process for obtaining coefficients for a dot filter.

Accordingly, for at least the reasons set forth above, Claim 1 is submitted to be patentable over Kato in view of Loce, and further in view of Nakamura.

When the recitations of Claims 7 and 8 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claims 7 and 8 likewise are patentable over Kato in view of Loce, and further in view of Nakamura.

Claims 17 and 18 depend indirectly from independent Claim 11, which is recited above.

None of Kato, Loce, and Nakamura, considered alone or in combination, describe nor suggest a computer-readable medium as recited in Claim 11. More specifically, none of Kato, Loce, and Nakamura, considered alone or in combination, describe or suggest a computer-readable medium encoded with a program configured to calculate a relative pixel value based on a predetermined threshold value T and an initial pixel value of at least one pixel of an obtained image. Further, none of Kato, Loce, and Nakamura, considered alone or in combination, describe or suggest a computer-readable medium encoded with a program configured to modulate a filtering operation with a gain factor that is based on a gain factor curve and a calculated relative pixel value. Rather, in contrast to the present invention, Kato describes a modulation transfer function that is based on the difference between an original image density and an unsharp mask density and based on an emphasis coefficient, Loce describes determining an occurrence threshold for a database entry as a function of the number of occurrences of an input template pattern and applying the threshold to an output pixel field to choose output pixels that have occurred in an activated state more times than the threshold to be activated in an output pattern, and Nakamura describes a filtering method that includes a process for obtaining coefficients for a dot filter.

Accordingly, for at least the reasons set forth above, Claim 11 is submitted to be patentable over Kato in view of Loce, and further in view of Nakamura.

When the recitations of Claims 17 and 18 are considered in combination with the recitations of Claim 11, Applicant submits that dependent Claims 17 and 18 likewise are patentable over Kato in view of Loce, and further in view of Nakamura.

For at least the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claims 7, 8, 17, and 18 be withdrawn.

With respect to Claims 8 and 18, the Examiner asserts on page 6 of the Office Action that "[w]ith respect to claim 8, Ahmed et al. teaches calculating the relative pixel value $P_r(i,j)$ from the effective pixel value by using $P_r(i,j)$-$P_e(i,j)$/T (col. 10 lines 13-28)." The Examiner also asserts on page 6 of the Office Action that "[w]ith respect to claim 18, please refer to rejection [*sic*] for claim 8." As such, it appears that Claims 8 and 18 are also rejected under 35 U.S.C. § 103(a) as being unpatentable over Kato in view of Loce, in view of Nakamura, and further in view of Ahmed et al. (U.S. Pat. No. 7,079,686) (hereinafter referred to as "Ahmed").

Applicant respectfully submits that Claims 8 and 18 are patentable over Kato in view of Loce, in view of Nakamura, and further in view of Ahmed.

Kato, Loce, and Nakamura are described above.

Ahmed describes systems and methods for enhancing images including a background removal process that compares an intensity value to an intensity threshold. The intensity threshold can be manually specified by a user, configured by default, or dynamically calculated. Notably, Ahmed does not describe or suggest calculating a relative pixel value based on a predetermined threshold value *T* and an initial pixel value of at least one pixel of an obtained image. Further, Ahmed does not describe or suggest modulating a filtering operation with a gain factor that is based on a gain factor curve and a calculated relative pixel value.

Claim 8 depends indirectly from independent Claim 1, which is recited above.

None of Kato, Loce, Nakamura, and Ahmed, considered alone or in combination, describe or suggest a method for filtering images as recited in Claim 1. More specifically,

none of Kato, Loce, Nakamura, and Ahmed, considered alone or in combination, describe or suggest a method that includes calculating a relative pixel value based on a predetermined threshold value *T* and an initial pixel value of at least one pixel of an obtained image. Further, none of Kato, Loce, Nakamura, and Ahmed, considered alone or in combination, describe or suggest a method that includes modulating a filtering operation with a gain factor that is based on a gain factor curve and a calculated relative pixel value. Rather, in contrast to the present invention, Kato describes a modulation transfer function that is based on the difference between an original image density and an unsharp mask density and based on an emphasis coefficient, Loce describes determining an occurrence threshold for a database entry as a function of the number of occurrences of an input template pattern and applying the threshold to an output pixel field to choose output pixels that have occurred in an activated state more times than the threshold to be activated in an output pattern, Nakamura describes a filtering method that includes a process for obtaining coefficients for a dot filter, and Ahmed describes a background removal process that determines an intensity threshold.

Accordingly, for at least the reasons set forth above, Claim 1 is submitted to be patentable over Kato in view of Loce, in view of Nakamura, and further in view of Ahmed.

When the recitations of Claim 8 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claim 8 likewise is patentable over Kato in view of Loce, in view of Nakamura, and further in view of Ahmed.

Claim 18 depends indirectly from independent Claim 11, which is recited above.

None of Kato, Loce, Nakamura, and Ahmed, considered alone or in combination, describe nor suggest a computer-readable medium as recited in Claim 11. More specifically, none of Kato, Loce, Nakamura, and Ahmed, considered alone or in combination, describe or suggest a computer-readable medium encoded with a program configured to calculate a relative pixel value based on a predetermined threshold value *T* and an initial pixel value of at least one pixel of an obtained image. Further, none of Kato, Loce, Nakamura, and Ahmed, considered alone or in combination, describe or suggest a computer-readable medium encoded with a program configured to modulate a filtering operation with a gain factor that is based on a gain factor curve and a calculated relative pixel value. Rather, in contrast to the present invention, Kato describes a modulation transfer function that is based on the difference between an original image density and an unsharp mask density and based on an

emphasis coefficient, Loce describes determining an occurrence threshold for a database entry as a function of the number of occurrences of an input template pattern and applying the threshold to an output pixel field to choose output pixels that have occurred in an activated state more times than the threshold to be activated in an output pattern, Nakamura describes a filtering method that includes a process for obtaining coefficients for a dot filter, and Ahmed describes a background removal process that determines an intensity threshold.

Accordingly, for at least the reasons set forth above, Claim 11 is submitted to be patentable over Kato in view of Loce, in view of Nakamura, and further in view of Ahmed.

When the recitations of Claim 18 are considered in combination with the recitations of Claim 11, Applicant submits that dependent Claim 18 likewise is patentable over Kato in view of Loce, in view of Nakamura, and further in view of Ahmed.

For at least the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claims 8 and 18 be withdrawn.

The rejection of Claim 26 under 35 U.S.C. § 103(a) as being unpatentable over Kato in view of Loce, and further in view of Argiro (U.S. Pub. No. 2007/0036417) ("Argiro") is respectfully traversed.

Kato and Loce are described above.

Argiro describes a method for selecting images of a portion of a cardiovascular system. The method includes receiving from an image scanner a plurality of images recorded over a period of time. The images represent one or more locations along an extent of a cardiovascular system. The method also includes selecting at least a subset of the images based on common criteria determined from the plurality of images and without reference to an external signal. For example, a voting mechanism based on the Hough Transform is used for detecting the aorta. In the Hough Transform, a fit value is determined for every pixel in an image. The fit value represents the probability that the point belongs to the aorta border. The computation of fit values is based on a priori knowledge of aorta properties in CT images and uses the image intensity in Hounsfield Units. Notably, Argiro does not describe or suggest calculating a relative pixel value based on a predetermined threshold value T and an initial pixel value of at least one pixel of an obtained image. Further, Argiro does not

describe or suggest modulating a filtering operation with a gain factor that is based on a gain factor curve and a calculated relative pixel value.

Although the Examiner asserts on page 6 of the Office Action "[w]ith respect to claim 7 . . .," Applicant believes such an assertion to be a typing error of "with respect to claim 26 . . . ." As such, Applicant proceeds as though the rejection of Claim 26 begins with "with respect to claim 26 . . . ."

Claim 26 depends directly from independent Claim 21, which is recited above.

None of Kato, Loce, and Argiro, considered alone or in combination, describe nor suggest a computed tomographic (CT) imaging system for filtering CT images as recited in Claim 21. More specifically, none of Kato, Loce, and Argiro, considered alone or in combination, describe or suggest an imaging system that includes a processor configured to calculate a relative pixel value based on a predetermined threshold value *T* and an initial pixel value of at least one pixel of an obtained image. Further, none of Kato, Loce, and Argiro, considered alone or in combination, describe or suggest an imaging system that includes a processor configured to modulate a filtering operation with a gain factor that is based on a gain factor curve and a calculated relative pixel value. Rather, in contrast to the present invention, Kato describes a modulation transfer function that is based on the difference between an original image density and an unsharp mask density and based on an emphasis coefficient, Loce describes determining an occurrence threshold for a database entry as a function of the number of occurrences of an input template pattern and applying the threshold to an output pixel field to choose output pixels that have occurred in an activated state more times than the threshold to be activated in an output pattern, and Argiro describes that the Hough Transform computes fit values for each pixel in an image based on a priori knowledge of aorta properties in CT images and image intensity in Hounsfield Units.

Accordingly, for at least the reasons set forth above, Claim 21 is submitted to be patentable over Kato in view of Loce, and further in view of Argiro.

When the recitations of Claim 26 are considered in combination with the recitations of Claim 21, Applicant submits that dependent Claim 26 likewise is patentable over Kato in view of Loce, and further in view of Argiro.

For at least the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claim 26 be withdrawn.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully submitted,

William J. Zychlewicz
Registration No. 51,366
ARMSTRONG TEASDALE LLP
One Metropolitan Square, Suite 2600
St. Louis, Missouri 63102-2740
(314) 621-5070